

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/982,687	LOUGHRAN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Wei Y Zhen	2122	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 10/12/2004.
2. ☒ The allowed claim(s) is/are 1,3-21 and 23-29.
3. ☒ The drawings filed on 18 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

Art Unit: 2122

1. This office action is in response to the amendment filed on 10/12/2004.
2. Claims 1, 3-21, 23-29 are allowed.

*Reasons for allowance*

3. The following is an examiner's statement of reasons for allowance: the cited prior arts taken alone or in combination fail to disclose, in combination with other claimed limitations, said main processor transmitting said debugging information word to a keyboard controller through a main processor bus; and transmitting, by said keyboard controller, said debugging information word using a secondary bus coupled to said keyboard controller, wherein the keyboard controller also includes an interface to an input device as recited in independent claim 1;

the cited prior arts taken alone or in combination fail to disclose, in combination with other claimed limitations, a keyboard controller that interfaces to an input device and to said main processor, said keyboard controller communicating debugging information words with said main processor through a main processor bus; and a secondary bus that interfaces with said keyboard controller, said secondary bus being used to convey said debugging information words as recited in independent claim 9;

the cited prior arts taken alone or in combination fail to disclose, in combination with other claimed limitations, receiving, by a keyboard controller coupled to said main processor and to an input device, said debugging information word from a secondary bus; and said keyboard controller transmitting, through a main processor bus, said debugging information word to said main processor as recited in independent claim 16;

Art Unit: 2122

the cited prior arts taken alone or in combination fail to disclose, in combination with other claimed limitations, receiving, by a keyboard controller coupled to said main processor and to an input device, a debugging information word from a secondary bus; and transmitting, by said keyboard controller, said debugging information word to said main processor through a main processor bus as recited in independent claim 21;

the cited prior arts taken alone or in combination fail to disclose, in combination with other claimed limitations, a keyboard controller that interfaces with said main processor and interfaces with an input device, said keyboard controller communicating debugging information words with said main processor through a main processor bus; a secondary bus that interfaces with said keyboard controller, said secondary bus being used to convey said debugging information words; and an adapter that conveys said debugging information to said second computer, wherein said second computer is interfaced to said first computer by way of said secondary bus as recited in independent claim 26.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### *Conclusion*

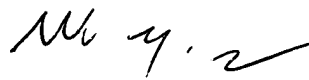
4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wei Y Zhen whose telephone number is (571) 272-3708. The examiner can normally be reached on Monday-Friday, 8 a.m. - 4:30 p.m..

Art Unit: 2122

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Wei Zhen  
1/4/2005

  
**WEI Y. ZHEN**  
**PRIMARY EXAMINER**